

Chapter 1 : INFECTIOUS DISEASES

Description This core text provides an excellent concise introduction to infectious diseases. The book integrates basic science with clinical practice with disease-orientated descriptions and clinical presentations on a system-by-system basis.

We are concerned with what these organisms do to people, rather than details of their biology. Everyone in the class will probably want to skim the section of a good pathology book to review basic microbiology and tissue reactions. The study of infectious disease is especially interesting because the etiologies of most of these diseases is clear -- damage by an invader. And if the invaders can be killed, the disease can be arrested. Today, only a few fools and crooks deny that micro-organisms cause disease. Yet the microbe is seldom the whole story or the "single" cause. Most infectious agents are, in some sense, opportunists "secondary invaders". Staph aureus takes advantage of dirt and body hair. Propionibacterium acnes flourishes in a milieu of chocolate and testosterone. Folk wisdom relates the common cold to body chilling. Often, known immune deficiency congenital, acquired, iatrogenic provides the portal. We all know the dread infections seen in patients on chemotherapy, by organisms once considered "non-pathogens". The Epstein-Barr virus causes infectious mono if that in healthy people, but causes cancer in AIDS victims and boys with X-linked immunodeficiency. Patients given glucocorticoids often have major problems with superficial fungi ringworm, and worse. Diabetics have ineffective neutrophils and high glucose, facts that make them vulnerable to Candida infections. Often, therapy itself provides the gateway for the infectious agent. Candida flourishes in intravenous hyperalimentation catheters, E. And for many if not most organisms, it is often unclear why one person who meets the microbe becomes very sick, and the next person is spared. The polio virus usually causes only a GI upset if that, and only a few people go on to become paralyzed. Histoplasmosis is usually trivial, but sometimes overwhelms a person who was in robust good health. AIDS only gets transmitted during the most intimate body-fluid sharing. The manifestations of Lyme disease are protean and unpredictable. However, a few organisms, when found, always indicate disease. The organism and its host have a mutually advantageous arrangement mitochondria producing ATP, E. The organism does the host no good and no harm worthless bugs in the gut, hepatitis B carrier Parasite: The organism thrives by actually doing harm to the host i. The organism lives off dead stuff i. The parasite or saprophyte is making somebody sick. A commensal, parasite, or saprophyte has been detected, other than what most people carry, whether or not somebody is sick. An infection that results because tissues are made vulnerable by another infection. Orders of magnitude more infectious agents than you "should" have, because of a fundamental change in your relationship with your parasite. The prime example is strongyloidiasis, where the worm changes its life cycle in the immunosuppressed. A multicellular animal usually an arthropod that transmits an infectious micro-organism. Inanimate objects that carry infectious organisms. This is why we care whether our silverware looks clean A clinically healthy person who is shedding an infectious organism, and can make others sick. Hospital pathogens are the result of decades of selection for antibiotic-resistance and the ability to infect the very-sick An outbreak of infectious disease. A never-ending epidemic Pandemic: An epidemic involving the whole world Zoonosis: R_0 -- the average number of people that the average patient infects. If it is more than one, an epidemic results. If it is less than one, an epidemic does not result. Depends on the bug and even more on the circumstances. Sometimes you can diagnose disease based on the finding of a particular organism for example, F. On other occasions, a positive result may be misleading for example, Staph epidermidis from a blood culture contaminated by skin flora, a single high antistreptolysin-O titer, or a negative result may not rule out infection i. Today, the final "fifth postulate", which establishes the micro-organism as agent of the disease, is the demonstration of a virulence gene. Viruses are the most frequent causes of human illnesses. The largest virus worth remembering is the smallpox virus 0. The smallest human pathogens include poliovirus 0. Each virus must 1 attach to the cell, 2 penetrate it, 3 un-coat, and 4 replicate. These stages together constitute the virus cycle. An "eclipse phase" almost always occurs between un-coating and replication; a virus integrated into the host genome, able to replicate with the dividing cell, is a provirus. Viremia means viruses

in the bloodstream. Except for some respiratory viruses, all viruses probably travel via the blood. As with any infection, it is a mistake to think of a single virus causing a single clinical syndrome. Here is a simplified taxonomy of the viruses mentioned in this unit and a few others:

Chapter 2 : Infectious diseases

Lecture Notes. An infectious disease is a clinical illness that results from the presence of a pathogen; the most common pathogens involved in cat and dog infectious disease are viruses and bacteria.

Infectious disease and vaccination Infectious disease and vaccination Lecture Notes Here we will discuss basic concepts of infections disease and vaccination for our dogs and cats Infectious diseases Lecture Notes An infectious disease is a clinical illness that results from the presence of a pathogen; the most common pathogens involved in cat and dog infectious disease are viruses and bacteria. Each disease will vary, but in general, shedding the pathogen in bodily secretions such as the saliva, urine, feces, and discharge from the nose and eyes. For our dogs and cats, the population that is most at risk is the newborn and very young animals, because their immune systems are not yet developed to a stage that can help them fight infection. Unfortunately, the severity of the disease and mortality rate are highest in these younger animals. Also, animals kept in crowded, stressful environments such as kennels or shelters are most susceptible to infections. Supportive therapy includes providing fluids and electrolyte support, preventing secondary infections with opportunistic bacteria, providing excellent nutrition, and basically keeping the animal as comfortable as possible in an environment that encourages rest. Fortunately, there are vaccines to help prevent many illnesses that affect cats and dogs. Vaccination has long been considered a primary tool in helping our companion animals live a long, healthy life. Vaccines are composed of infectious agents that have been altered in some way to make them nonpathogenic. When the vaccine is introduced to the body, the immune system is mildly stimulated so that if a dog or cat is ever exposed to the real disease, his immune system is now prepared to recognize and fight it off entirely or at least reduce the severity of the illness. Routes of administration Lecture Notes Vaccines can be administered to the animal as an injection into the muscle. Each specific vaccine will have a recommended route of administration. What is the reason that puppies and kittens need a series of vaccinations? Maternal antibody blocking -1 Lecture Notes Puppies and kittens are born with immature immune systems which make them highly susceptible to contracting disease. Fortunately, we know that the first milk a mother cat produces, colostrum, contains antibodies that help protect her offspring from infectious disease until their immune systems are mature. These maternal antibodies are essential, but it presents some challenges. This antibodies may disappear much sooner if the mother was not vaccinated. Maternal antibody blocking -2 Lecture Notes As mentioned, around 6 weeks of age, the antibodies that a puppy or kitten received from her mother start to decline, and continue to decrease until they are undetectable by around 16 weeks of age. That would not be a problem if the maternal antibodies were strong enough to prevent infection of the natural disease, but remember that they are declining during this period, so they may not be at a sufficient level to protect against the natural infection. Again, these will start around weeks and continue every weeks until the animal is about 16 weeks old. The rabies vaccination is given to puppies and kittens as a single injection; the earliest age to receive the vaccination is 12 weeks and no later than 16 weeks. Vaccination guidelines for adults Lecture Notes For adult animals then, you and your veterinarian can work together to best determine a vaccination schedule. It is standard that adults are given a booster of their core vaccines one year after the initial series. Beyond that, adults might be revaccinated annually or every three years. As for rabies, after the first rabies vaccine has been given, an animal must have a booster one year later. After that, some areas require annual vaccination; others require a vaccination every three years. In almost all states, proof of rabies vaccination is mandatory.

Chapter 3 : Lecture Notes: Infectious Diseases : B. Mandal :

Lecture Notes on Infectious Diseases - PubMed Central (PMC) Wed, 28 Dec GMT Full text is available as a scanned copy of the original print version.

Chapter 4 : Slides and Notes for Lecture: Infectious disease and vaccination

DOWNLOAD PDF LECTURE NOTES ON THE INFECTIOUS DISEASES

Lecture Notes on Infectious Diseases This core text provides an excellent concise introduction to infectious diseases. The book integrates basic science with clinical practice with disease-orientated descriptions and clinical presentations on a system-by-system basis.

Chapter 5 : Kaplan USMLE Step 1 Lecture Notes _ 7-Book Set () [PDF] - Medical Books and Resources

Full text Full text is available as a scanned copy of the original print version. Get a printable copy (PDF file) of the complete article (K), or click on a page image below to browse page by page.

Chapter 6 : Epidemiology of Infectious Diseases : Lecture Materials

Lecture Notes on the Infectious Diseases, a British version of the "minitextbook," consists of 44 brief chapters prefaced by 18 color plates. *Lecture Notes on the Infectious Diseases - Mayo Clinic Proceedings*.

Chapter 7 : Infectious Disease Board Review Course | The Pass Machine

Enter your mobile number or email address below and we'll send you a link to download the free Kindle App. Then you can start reading Kindle books on your smartphone, tablet, or computer - no Kindle device required.

Chapter 8 : Lecture Notes Book Series

Learn exam notes infectious disease pharmacy with free interactive flashcards. Choose from different sets of exam notes infectious disease pharmacy flashcards on Quizlet.